

ABSTRACT OF THE DISCLOSURE

A white light LED having high color rendering indices and a correlated color temperature similar to that of an incandescent lamp. The LED has a semiconductor body formed of a semiconductor layer sequence capable of emitting electromagnetic radiation in a blue spectral range, the radiation exciting a yellow phosphor resulting in an intermediate blue-yellow light output whose chromaticity coordinates are transformed by a casting compound encompassing the semiconductor body and phosphor. A colored tint blended with epoxy resin forms the casting compound and filters the blue-yellow output, passing the red wavelength components of the blue-yellow output while attenuating the blue-yellow spectral wavelength, resulting in a balanced white output having a correlated color temperature, chromaticity coordinates, and color rendering indices similar to that of an incandescent lamp output.